

Volunteers and Partners

Helping Us to Serve
You Better



Northern Virginia Soil and Water Conservation District
ANNUAL REPORT
FY 2002

Organization

The Northern Virginia Soil and Water Conservation District is a political subdivision of the Commonwealth of Virginia. Its boundaries are the same as those of Fairfax County. Founded by citizens concerned about conserving natural resources, NVSWCD is one of 47 conservation districts in Virginia and serves an area with almost a million people. NVSWCD is governed by a five-member Board of Directors. Three directors are elected in a general election every four years, and two, including a Virginia Cooperative Extension agent serving Fairfax County, are appointed by the Virginia Soil and Water Conservation Board. The NVSWCD Board of Directors meets the fourth Tuesday of every month. Directors serve without pay but are reimbursed for expenses related to district activities. NVSWCD has been Fairfax County's partner for nearly 60 years. Our technical and educational programs are made possible by funding and administrative support from Fairfax County, the Commonwealth of Virginia through its Department of Conservation and Recreation, and various public and private grants. Assistance also comes from the USDA's Natural Resources Conservation Service (NRCS) and other partners.

Our Vision...

is of Fairfax County with clean streams and protected natural resources.

Our Mission...

is to lessen the impact of urban/suburban activities on our land and water resources in Fairfax County—vital components of the Chesapeake Bay Watershed. We achieve this through effective leadership, technical assistance, and outreach programs in collaboration with government, industry, and the public.

The Year in Review

Message from the Chair

The President of the United States has encouraged Americans to volunteer 4,000 hours, or two years of their lives, to give back to America. In Fairfax County, hundreds of volunteers working with the Northern Virginia Soil and Water Conservation District have contributed thousands of hours to help with stream monitoring, tree planting, stream and river cleanups, storm drain stenciling, watershed education, and other outreach programs. Many of these volunteers are members of the Earth Team, the volunteer arm of the U.S. Department of Agriculture's Natural Resources Conservation Service. Our Earth Team volunteers received the top award in Virginia and in the nation as the most effective Earth Team in a conservation district last year.

Volunteers reach out to areas and people that might otherwise be under-served. Our volunteers make a huge impact on the services we are able to provide and the knowledge that we and others gain. It takes a remarkable person to be a volunteer, to give up free time to do something for the greater good. We don't reward volunteers with salaries or gifts. But we make them feel that they are part of a team... The team of the Northern Virginia Soil and Water Conservation District.

In addition to our cadre of volunteers, we have many partners in government who lend their time and expertise to us during the course of their work. We sit with County officials on committees that address a wide range of subjects including regional ponds, watershed management initiatives, and web page development. We seek input from urban foresters, resource management professionals,

and biologists. We provide advice to civil engineers, planners, and policy makers. Information sharing is ongoing. We build relationships and nurture them. In return, our programs grow, our services multiply, and we play a role in environmental planning and policy in Fairfax County.

In the past year we have provided training opportunities for our staff and invited other individuals, groups, and agencies to share in our experiences. We will continue over the coming year to hone our skills, streamline our services, and improve our ability to serve our constituents, the citizens of Fairfax County.

Sincerely,

Dewey Bond, Chairman

Protecting & Rehabilitating Our Natural Resources

The Northern Virginia Soil and Water Conservation District supports a holistic approach to addressing the potential havoc that land use inflicts on the environment. Addressing the cause of a problem is as important as alleviating the symptoms. Remedies should be economically feasible, effective, and sustainable.

Still, assistance to individual homeowners remains a priority. Staff advises residents on how to handle yard drainage problems, wet or cracked basements, poor soils, leaky ponds, and much more.

Erosion & Sediment Control and Stormwater Management

The District continues to see interest in erosion and sediment control and stormwater management as they affect the quality of our streams and the life that they support. This interest has come from County officials, citizen groups, and even the development community. Consequently, the staff has undertaken several projects from the planning and design phase all the way through implementation and follow-up. We have shifted our emphasis away from simply counting the number of individuals and groups assisted to focusing on the quality of help we can provide. Visiting a site once and making a recommendation is no longer enough. Today's District employees are making themselves known as ongoing and reliable sources of advice and assistance in every stage of a project.

We use stream stabilization and pond retrofitting projects as demonstrations of the effectiveness of innovative management techniques. Promoting these projects through photographs and



NVSWCD's Asad Rouhi (center) and Willie Woode (right) look over erosion and sediment control plans with a contractor at an active construction site.

Technical Assistance

Pond inquiries/visits	43
Soils inquiries	194
Visits to homeowners	124
Other telephone/email/walk-in inquiries	472
Site plans reviewed for E&S and SWM	56
Rezoning/special exceptions reviewed	226
Agricultural parcels planned	30
Acreage	237
Resource protection areas protected (linear ft) .	5,230

Friends of the District

In recognition of their significant contributions in support of NVSWCD objectives, the Board of Directors recognized three individuals as Friends of the District.

*Diana Saccone, Reston Association
for her dedication to stream monitoring and her
promotion of conservation practices throughout the
Reston community.*

*Mike McCaffrey, Fairfax County Park Authority
for his leadership and enthusiasm in coaching the
NVSWCD Envirothon team from Hidden Pond Nature
Center.*

*Judy Okay, Virginia Department of Forestry
for her partnership in stream restoration projects and
her valued input on Land Conservation Awards, the
seedling sale, Envirothon, and the scholarship
competition.*

the written word is now the norm. Sharing knowledge and skills empowers our partners and us in our mutual goal of environmental protection.

One of the highlights of our project list is the **Accotink Creek Streambank Stabilization Project**, a partnership among the District, the Fairfax County Park Authority (FCPA), Virginia Department of Forestry (VDOF), and the Fairfax County Department of Public Works and Environmental Services (DPWES). Like many streams in Fairfax County, Accotink Creek has serious erosion. Development in the watershed has replaced absorbent soil and vegetation with impervious (nonporous) surface such as roofs, roads, and parking lots.

Below the dam of Lake Accotink is where VDOF and NVSWCD demonstrated stream bank stabilization techniques to 40 participants at the end of an intensive three-day workshop. The first day of the workshop covered the basics of stream classification and fluvial geomorphology and their application to stream restoration. The second day covered how to take stream measurements.

Staff showed the group several bioengineering techniques to protect the banks and improve habitat including biodegradable logs and erosion control matting, shrubs and live stakes, and cedar revetments. In addition, the group learned about structural practices including a-jacks and rock cross vanes. DPWES operated the heavy equipment needed to grade the banks and lift the larger rocks to create the cross vane.

A Sample of Special Projects

Laurel Hill

The Laurel Hill development is located on 280 acres that were initially part of the Lorton prison site. Development includes roads, residential housing, and schools. Fairfax County has required the developer to provide a comprehensive pre- and post-construction monitoring plan to determine

the impact of this development on the site's streams and wetlands. NVSWCD and the Department of Public Works and Environmental Services are reviewing and supervising the outcome of the monitoring.

Government Center Stormwater Management Dry Ponds Retrofit

NVSWCD's proposal for retrofitting an existing stormwater management pond in front of the Government Center was implemented in fall 2001. District staff prepared the design and helped DPWES in planting the pond following construction.

Huntley Meadows

Assisted the Fairfax County Park Authority in developing a plan to decrease the amount of sediment from two streams flowing into Huntley Meadows wetlands. The streams are Barnyard Run and Dogue Creek.

Land Conservation Awards

Every fall NVSWCD staff serve as judges on construction projects nominated by County inspectors and others for their outstanding implementation and maintenance of erosion and sediment controls. Judges select the best sites in different categories and recognize the developer, superintendent, and engineer. The program is sponsored by the Fairfax County Department of Public Works and Environmental Services.

Lake Martin

NVSWCD reviewed the County's proposals for retrofitting two existing stormwater management ponds and stabilizing the streams above Lake Martin. Lake Martin has been the subject of litigation because of the sediments that have accumulated inside the lake. The sedimentation has been attributed to inadequate stormwater management from upstream development. The pond retrofits and



Above, Urban Conservation Engineer Asad Rouhi takes measurements of an eroded stream in order to design a stabilization plan for it. Below, workshop attendees help install biologs, erosion control mats, and riparian plants at Accotink Creek.



Outreach Program

Public info inquiries	202
Inquiries via web site	half-year 90
Printed info distributed	4,156
News releases issued	19
Annual report circulation	3,200
Seedlings pkg sold/total seedlings	250/3,500
Mass planting projects/seedlings planted ...	12/4,200
Newsletter issues published/circulation	5/ea 3,000
Enviroscape presentations/audience	6/525
Storm drain stenciling projects/households educated .	
.....	5/3,497
Presentations to groups/attendance	9/711
Volunteer hours	6,259
Web pages developed (begam 12-1-01) half year	80
Web site visitors avg per month	1,600
Web announcements	10
Exhibits/visitors	8/1,100
Seminars and workshops/attendees	8/502

stream stabilization measures are intended to prevent future sedimentation in the lake.

Golf Courses and Nurseries

Golf courses and nurseries in Fairfax County must have nutrient management plans. This year staff reviewed plans for Belle Haven Country Club, Chantilly Golf and Country Club, and Cravens Nursery.

Agriculture

In addition to addressing urban/suburban issues, the District plays a role in agricultural concerns. Agriculture in Fairfax County means horses. The District provides soil and water quality conservation planning for agricultural land users to assist them in meeting the requirements of the Chesapeake Bay Preservation Ordinance. The Ordinance aims to improve water quality in the Bay by reducing the amount of nonpoint source pollutants entering the Bay and its tributaries. The District also develops plans for Agricultural and Forestal Districts.

NVSWCD recognized Sara Kirk and Glenn Zoski as *Bay Friendly Farmers of the Year* for installing measures to protect their stream from horse trampling and manure. The couple received state cost-share funds to help pay for the project.

Reaching Out

The District conducts a variety of outreach programs that inform, involve, and motivate Fairfax County citizens.

Web Site

Communicating with a broad audience became easier this year with the District's new home page on the Internet. Because of our close relationship with Fairfax County, our homepage is integrated



Above, volunteers demonstrate a watershed model as part of the District's exhibit at the Earth Day/Arbor Day festival on the campus of the Northern Virginia Community College. Below, NVSWCD Board member Sally Ormsby helps a festival visitor locate his watershed on a map of the County's 30 watersheds.

with the County's Internet site. We have translated many of our publications, such as *You and Your Land* and *Conservation Currents*, into digital formats which has reduced our printing and mailing costs and extended our reach. Each of the services the District provides has its own descriptive page with contact information. Several County agencies link to our pages because of the depth of environmental information we provide.

On an average weekday in June 2002, NVSWCD web pages had 78 visitors.

Storm Drain Stenciling

NVSWCD provides detailed guidelines on storm drain stenciling projects. Volunteers stencil the storm drains with a "Dumping Pollutes" message after distributing nonpoint source pollution information to each home in the affected neighborhood. The program is popular with scouting groups and homeowner associations.

Envirothon

The district sponsors a team in the Virginia Envirothon, a natural resources competition for high

school students. In April, the District participated in a regional Envirothon at Crockett Park in Fauquier County. Teams spent an intense four hours testing their knowledge in five subject areas — aquatics, forestry, soils, wildlife, and the effect of introduced species on biodiversity. For the third consecutive year, the NVSWCD team included students from several area high schools who volunteer at the Fairfax County Park Authority's Hidden Pond Nature Center. Three of the five team members graduated in June and headed off to college.

Science Fair and Scholarship

District staff, directors, and associates served as judges in the County's Regional Science and Engineering Fair and in a statewide college scholarship competition sponsored by the Virginia Association of Soil and Water Conservation Districts. In both programs, judges looked for students who showed a long term interest and commitment to natural resource conservation.

The District's nominee for the VASWCD college scholarship, Reston High School senior Alexis



Top 20 Web Pages

Sample: June 2002

1. Homepage
2. Ponds
3. You & Your Land - Soils and Drainage
4. You & Your Land - Landscaping and Gardening
5. Soils Information
6. Who We Are
7. Drainage and Erosion
8. You and Your Land - Introduction
9. Partners
10. Volunteer Stream Monitoring
11. Announcements
12. You & Your Land - Beyond Your Backyard
13. Board of Directors and Staff
14. Agriculture and Horses
15. Conservation Currents Index
16. 2003 Seedling Program
17. Stream Restoration and Stabilization
18. You & Your Land - Controlling Pests
19. Storm drain Stenciling
20. Envirothon

Vaughan, won a \$1,000 scholarship. Vaughan will study Biological Anthropology and Anatomy with a concentration in Ecology and Primates at Duke University.

Enviroscape

The District continues to use the *Enviroscape* watershed model to demonstrate the effects of land use on the environment. The interactive model shows how runoff from yards, construction sites, farms, and roads can pollute our streams, lakes, and rivers.

Seedling Promotion

Flowers and Fruits was the theme of this year's spring seedling sale. Each of the seven varieties in the package had a colorful fruit or flower to enhance the beauty of a landscape and provide food for birds and other wildlife. The District assembled and sold 250 packages and sold many more of the species in bulk. The District also gave away 4,200 oak, sweet gum, and pine seedlings for mass planting projects. Both seedling programs emphasized the role of vegetation in preventing erosion, conserving energy, and decreasing and filtering stormwater runoff. Maintaining and replenishing trees and shrubs not only enhances the aesthetics of a landscape but also can reduce the impact of development on nearby streams.

Potomac Council and Roundtable

The District takes an active role in the Potomac Council, which was formed in 2000 by the six conservation districts in the Potomac watershed.

The Potomac Council held its second public forum in August 2001. The 160 attendees heard presentations on improving water quality through effective implementation of erosion and sediment control regulations; effective urban best management practices; funding opportunities for watershed initiatives; and tools for agricultural land pres-

ervation. NVSWCD created an exhibit for the Council to promote its mission.

The first Potomac Forum in 2000 launched the Potomac Roundtable, a regional government-citizen forum whose purpose is to promote cooperation on water quality management concerns among the various local governments and stakeholder groups residing within the Virginia side of the Potomac River watershed.

The Roundtable members elected NVSWCD Director Greg Evans as its first chair. The Roundtable made recommendations to the state on nutrient cap strategies for improving impaired waterways in the region and to the EPA on Total Maximum Daily Load plans for the Chesapeake Bay. It also developed legislative recommendations for the Virginia General Assembly's Commission on the Future of Virginia's Environment aimed at improving Virginia's erosion and sediment control and stormwater management programs.

Publications

Conservation Currents is the District's award winning bi-monthly newsletter. The mailing list includes homeowner and civic associations in Fairfax County; selected local, state, and federal officials; schools; libraries; environmental groups; other soil and water conservation districts; organizations; and interested citizens.

We continue to promote and distribute *You and Your Land, a Homeowner's Guide for the Potomac River Watershed*. In addition to the print version, the book is available for downloading from the NVSWCD web site.

Stream Monitoring

Several Fairfax County public and private high schools have joined the program and are learning not only about stream monitoring but also about the interconnectedness of streams with their respective watersheds. Seventy-five students at Marshall

High School participated in an introductory stream monitoring program held at Hemlock Overlook Outdoor Education Center. Some of the students are part of an environmental club and have conducted biological and chemical monitoring of the school stream and regularly performed cleanups. They also bundled seedlings for the District's spring seedling giveaway.

About 20 students from Woodson High School monitor one site on Longbranch and two on Accotink Creek. The Fairfax County Park Authority presented the Woodson monitoring team with its Good Neighbor award for its stream monitoring efforts. Their teacher, George Crump, was also recognized at the state level for his hands-on teaching approach.

Riverbend Park, working with the District, organized a training session for teachers and students from Kent Gardens, the first elementary school to join our monitoring program. In fall 2001, fifth graders began monitoring a section of Pimmit Run located behind their school. There will be several certified monitors present to check the validity of the data.

Many other parks are taking part in our monitoring program. A partnership with Lake Accotink Park has resulted in the collection of consistent data on three sites, incorporation of stream monitoring into the park's summer camp programs, and the formation of the Upper Accotink Creek Watershed Education Program. A partnership with the George Washington Memorial Parkway National Park's Student Conservation Association program has resulted in highly trained interns collecting additional data during the summer months on streams draining into the Potomac. Staff from Ellanor C. Lawrence Park and Riverbend Park collect data for our program and integrate monitoring into their educational programs.

The Reston Association helps the District promote the stream monitoring program and provides guidance to volunteers working in the Reston

Stream Monitoring

Active monitors	* 101
Active sites	** summer 61
.....	fall 41
.....	winter 39
.....	spring 40
Volunteer hours	4,376
Education events	21
Training sessions	57

* Annual average based on summer, fall, winter. Spring had 170 monitors due to an influx of students participating one time only.

** Summer sites include those monitored by the National Park Service under the training and guidance of NVSWCD.

Conservation Currents Sample Articles*

- Helping homeowner care for stream
- Go native: avoid alien plant species
- Dredging planned for Lake Accotink
- Common stream bank stabilization terms
- Composting kitchen waste with worms
- Bank stabilization at Accotink Creek
- NVSWCD volunteers earn top honors
- Will geese leave the government center
- What's wrong (or right) with regional ponds
- Vernal pools--an overlooked natural resource
- The benefits of urban trees
- Proper disposal of pet waste and cigarette butts
- Environmentally friendly car washing
- Lower taxes with conservation easements
- Pond renovation at Mason District Park

*View these articles and more on our web site at
www.fairfaxcounty.gov/nvswcd/conservationcurrentsindex.htm.

area. The volunteers are part of both the Reston and the NVSWCD programs. The Reston Association provides outreach to future monitors and helps the District promote its stream monitoring program. Our monitors have played an active role in helping to develop Reston's Watershed Management Plan. They have increased their technical knowledge of watershed issues by assisting with field data collection and reviewing watershed plans.

In the Spring of 2002, the District began a new partnership with George Mason University's New Century College Program. The professors integrated watershed concepts into the foundation of a course titled, *Citizen as Self*. During the course, over 100 students were required to participate in stream monitoring, stream cleanups, watershed walks, and restoration events. They also worked on a final project to assess a watershed and present both problems and solutions. The District will continue to work with the professors to integrate students into real-life projects and activities.

Our stream monitoring program has been recognized at the state level to be a prototype for monitoring programs. We presented at the Virginia Water Monitoring Conference, the Citizens for Water Quality Conference, and the Virginia Water Research Symposium.

Staff Development

The services the conservation district provides depend on the capabilities of the staff and board members.

The technical staff undertook extensive training in the past year on stream behavior. Conservation Engineer Asad Rouhi and Conservation Specialist Willie Woode learned what stream data to

collect, how to collect it, and how to interpret and apply it. By knowing what a stream should look like and how it should behave, they are better equipped to assess the impact of development, erosion, sedimentation, and flooding as well as the health of that stream's ecology and wildlife habitat. Dave Rosgen, nationally known for his stream classification system, taught the course on river morphology and application.

The Fairfax County Department of Public Works and Environmental Services and the Virginia Department of Forestry often team up with district staff in the planning and implementation of stream restoration projects.

Public Information Officer Andrea Ceisler learned how to use different software applications in order to prepare web pages within the parameters established by Fairfax County. With almost 100 files on the web, NVSWCD is a leader in supplying environmental information to County residents.

Administrative Assistant Nick Kokales studied database management to streamline the district's mailing list and enable the district to target specialized activities to the appropriate people. He also took a course in soil identification to assist the technical staff with soils inquiries that have increased dramatically in the past six months. Much of the increase is attributed to the web site.

Watershed Specialist Joanna Arciszewski expanded her understanding of water resource issues by attending several conferences, and meetings and by participating in the field and office aspects of Reston's Watershed Management Planning.

District Administrator Diane Hoffman completed five years of service on the Board of Directors of the Center for Watershed Protection, bringing back to the District a wealth of knowledge and a strong partnership.

Cooperator of the Year



Laura Grape, a biologist with the Fairfax County Department of Public Works and Environmental Services was the 2002 NVSWCD Cooperator of the Year. A cooperator is one who works in partnership with the District to protect and conserve natural resources in Fairfax County.

Grape participated in many conservation education programs that reached hundreds of citizens, including demonstrations of a watershed model to show the effects of nonpoint source pollution and interactive macroinvertebrate displays at local community events. She developed crucial links between the County and citizens by attending meetings with groups such as Friends of Little Rocky Run and Reston Watershed Action Group. She is an enthusiastic promoter and participant in events that encourage environmental organizations to partner together to provide special programs, such as the watershed walks and National Water Monitoring day events. She also provided input for a *Conservation Currents* article on stream mapping. And, very importantly, she continues to provide on-going support to our Volunteer Stream Monitoring Program.

Board of Directors

A. Dewey Bond	Chairman
Jean Packard	Vice Chairman
Gregory Evans	Secretary
Sally Ormsby	Treasurer
Adria C. Bordas	Director — Extension

Staff

Joanna Arciszewski	Watershed Specialist
Andrea Ceisler	Public Information Officer
Diane Hoffman	District Administrator
Nicholas Kokales	Administrative Assistant
Asad Rouhi	Urban Conservation Engineer
Wilfred Woode	Senior Conservation/Agricultural Water Quality Specialist

Barry Harris Acting District Conservationist (USDA Natural Resources Conservation Service)

Associate Directors

Christa Cook, Stuart Finley, Bob Kohnke, Mary Nightlinger, Fernando Pasquel, Col. W. W. Smith, Dick Terwilliger

Conservation Consultants

Gloria Fisher, Walter Hamilton, Don Kelso, Nancy Michaelson, Don Wayne

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